AMENDMENT TO THE SPECIFICATION

Please add the following Summary of the Invention at page 2, line 4:

II. Summary of the Invention

One aspect of the invention is directed to an off the road vehicle. The vehicle includes a frame, an engine operatively supported by the frame, and at least a first ground engaging drive wheel operatively supported by the frame. The vehicle also includes a drive system for use in selectively driving the at least first ground engaging drive wheel, the drive system being operatively connected to the engine, the drive system including a transmission having a forward condition, a reverse condition and a neutral condition for driving the ground engaging wheel, the transmission having an actuator rod attached thereto for use in shifting the transmission between the forward, reverse and neutral conditions. The vehicle also includes a transmission control system. The transmission control system includes an operator actuated activating means and a shift control mechanism that selectively receives an input from the activating means and selectively sends a corresponding output. The transmission control system also includes a vacuum actuator operatively connected to the shift control mechanism and operatively connected to the actuating rod; the vacuum actuator receiving the output from the shift control mechanism and adjusting the actuating rod to shift the transmission between the forward and reverse directions. The vehicle also includes a sensing mechanism, the sensing mechanism comprising a sensor detector and a sensor, the sensor detector being connected to the actuator rod so as to move with the actuator rod when shifting the transmission between the forward, reverse and neutral conditions, wherein the sensor detects when the sensor detector is in a neutral condition and when the sensor detector is not in the neutral condition.

Another aspect of the invention is directed to a direction control system for an off-road vehicle having a drive system that selectively drives at least one ground engaging drive wheel, the drive system including a transmission having a forward condition, a

reverse condition and a neutral condition for driving the ground engaging wheel. The control system includes a plurality of push buttons, the push buttons comprising at least a forward, a reverse and a neutral push button. The control system also includes a vacuum actuator and an actuator rod operatively connected to the transmission and to the vacuum actuator. The actuator rod is movable in first and second directions by the vacuum actuator into a forward position, a reverse position, and a neutral position thereby commanding the transmission into the transmission into forward condition, the reverse condition, and the reverse condition, respectively. The control system also includes a shift control mechanism that receives inputs from the plurality of push button and uses the inputs to control the vacuum actuator to selectively move the actuator rod to shift the transmission between the forward, reverse and neutral conditions based on the condition of the plurality of push buttons. The control system also includes a sensing mechanism, the sensing mechanism comprising a sensor detector and a sensor, the sensor detector being connected to the actuator rod so as to move with the actuator rod when shifting the transmission between the forward, reverse and neutral conditions, wherein the sensor detects when the actuator rod is in a neutral position and when the actuator rod is not in the neutral position.

Please replace the paragraph beginning on page 5, line 11 with the following amended paragraph:

Referring to FIGS. 1 and 12, the vehicle 1 includes an operator seat 11, a frame 13, a steering implement 12 for turning front wheels 15 and an engine 14. The engine 14 can be of any type currently used in the art but preferably it includes a vacuum means such as an intake manifold [[25]] (not shown). It should be noted that other vacuum means 155 such as a vacuum pump (not shown) could also be used to supply vacuum for this invention. Optionally but preferably, an accumulator 156 (shown in FIGS. 8 and 17) may be used in combination with the vacuum means 155 to increase the vacuum capacity. The engine 14 is used, as is commonly known in the art, to provide power to a

transmission 22, as shown in FIGS. 2, 17, and 18 that provides power to drive wheels, back wheels 18 as shown, for providing locomotion for the vehicle 1.

Please replace the paragraph beginning on page 9, line 25 with the following amended paragraph:

Still referring to FIGS. 2 and 4 the operation of the control circuit 32 will now be described. While the operator is sitting on the vehicle 1, in order to move the vehicle 1 in the forward direction, the operator activates the forward switch 33 by depressing the forward push button 72, 158 as described above. The control mechanism 166, shown in FIG. 23, sends a signal to the forward switch 33 thereby closing the switch 33 and activating the circuit. By closing the forward switch 33, an electric signal is sent to the relay 44 thereby energizing the relay 44. The relay 44 closes thus completing the circuit and allowing power to flow to the solenoid 36, thereby energizing the solenoid 36. Once the solenoid 36 is energized, the solenoid 36 opens and allows air to flow from the vacuum actuator 20 to the vacuum means 155, thereby creating a vacuum in the first vacuum compartment 28. As the vacuum forms in the first vacuum compartment 28, the internal membrane of the vacuum actuator 20 moves in the first direction 29 and pushes on the actuator rod 66. The actuator rod 66 shifts the gears of the transmission 22 to allow the vehicle 1 to move in the forward direction. At this time an indicator light 48 is also energized to inform the operator that the forward circuit is energized. Once the transmission 22 has shifted gears and the vehicle is moving in the forward direction, the shift pin 70 (FIG. 6) contacts and activates the cut off switch 40. The cut off switch 40 is opened and interrupts the circuit thereby de-energizing the solenoid 36. As the solenoid 36 closes it stops the airflow from the vacuum actuator 20 to the vacuum means 155 thereby diminishing the vacuum in the vacuum actuator 20. As the vacuum diminishes the internal membrane of the vacuum actuator 20 moves in the second direction 31 back to its original position. It should be noted that when the cut off switch 40 is activated and opens the solenoid 36 thereby diminishing the vacuum within the vacuum actuator 20, the vehicle 1 still continues to move in the forward direction as long as the operator continues to activate the forward switch 33. The operator can deactivate the forward

switch 33 by either depressing the brake 106 as shown in FIGS. 1A and 14 or depressing the neutral push button 160 as shown in FIG. 15. Once the operator deactivates the forward switch 33 the vehicle 1 will cease to move in the forward direction. To operate the vehicle 1 in the reverse direction the same electrical and mechanical sequence previously described is performed with the reverse switch 34, the cut off switch 42, the relay 46 and the second solenoid 38. The only difference is that in order to move the vehicle 1 in the reverse direction the operator must activate the reverse push button 74, 162 as shown in [[FIG.]] FIGS. 11 and 15 to activate the reverse switch 34.